

REMARKS

5 This is an amendment after final filed under 37 CFR
1.116 which places all claims in condition for allowance and
is responsive to the office action of April 16, 2009 and
telephone interview with examiner Wong of May 19, 2009. The
present amendment corrects matters of form related to the 35
10 USC 101 and 35 USC 112 rejections of claims 73, 91, and 112.

Applicant acknowledges previously allowed claims 75-90,
102, 104-111.

15 Telephone interview with examiner Wong: Applicant
notes that a telephonic interview was conducted with
examiner Wong on May 19, 2009 related to claims amendments
which would overcome the 35 USC 101 and 35 USC 112
rejections of the 4/16/09 office action. Following the
20 telephonic interview with examiner Wong, the present
amendment was informally presented via email and approved by
examiner Wong and the supervisory examiner on 5/19/2009.
The amendments to the claims and remarks which appear below
are unchanged from the claims amendments and remarks

presented by email on 5/19/2009 and approved by examiner Wong.

With regard to the 35 USC 112 rejection of claim 73 for
5 "Single Means Claim" form, applicant has amended this claim to recite controller and encoder structures which are operative as shown in the amended claim:

--A communication interface having n data lanes, said
10 interface having a controller for sequentially and contiguously transmitting a header including a packet type field describing a payload data type, said controller generating a header distributed across a plurality of said data lanes, said controller also generating a variable
15 amount of payload data comprising an encapsulated packet having an encapsulated header and encapsulated data, said payload data distributed sequentially across said n data lanes by said controller;

said encapsulated header containing information
20 unrelated to said packet header other than said packet type field;

a field check sequence computed over the entire said payload data, concatenated to the end of said payload, and distributed sequentially across said n data lanes by said
25 controller;

said header includes transmitting a START symbol on first said data lane, and the transmission of said payload data is followed by said field check sequence distributed as bytes across said n data lanes and an END symbol on at least
5 one said data lane;

said payload data includes transmitting successive data bytes canonically across said n successive data lanes up to data lane m, where $m \leq n$;

an encoder coupled to each said data lane such that
10 during intervals when said header or said payload is not being transmitted, each said encoder generates an alternating pattern of a first preamble symbol and a second preamble symbol distinct from said first preamble symbol ~~is transmitted~~ across said n data lanes;
15 and said $n > 1$.--

With regard to the 35 USC 112 rejection of claim 91 for "Single Means Claim" form, applicant has amended this claim to recite controller structure which generates and organizes
20 the streams as follows:

--A transmitter for sending data formed into ~~a stream~~
streams of 8-bit bytes by a controller, ~~the stream said~~
streams forming comprising a header followed by a variable
25 length payload, said data substantially simultaneously

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transmitted on a first data lane, a second data lane, a third data lane, and a fourth data lane in a succession of time sequences in the following manner:

said controller sending a preamble on said first, said
5 second, said third, and said fourth data lanes until said variable length data is ready to transmit, where said controller sending a preamble including sending the alternating sequence of a first preamble symbol and a second preamble symbol distinct from said first preamble
10 symbol across said four data lanes, and when said data stream is ready to transmit:

said controller sending a START symbol on said first data lane and said first three successive bytes of data from said stream on said second, said third, and said fourth data
15 lanes during one said time sequence;

said controller sending the remainder of said data stream by sending each subsequent four bytes of unsent data on said first, said second, said third, and said fourth data lanes during successive said time sequences until there is
20 insufficient data to send on all four said data lanes, said insufficient data being final data;

when there is no said final data to send, said controller sending said END symbol on said first lane, and said preamble on said second, said third, and said fourth
25 lanes;

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when said final data comprises one said data lane, said controller sending said final data on said first lane, an END symbol on said second lane, and said preamble on said third and said fourth lanes;

5 when said final data comprises two said data lanes, said controller sending said final data on said first and said second lane, an END symbol on said third lane, and said preamble on said fourth lane,

10 when said final data comprises three said data lanes, said controller sending said final data on said first, said second, and said third lane, and an end symbol on said fourth lane.--

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With regard to the 35 USC 112 rejection of claims 74-102 and 105-119, applicant notes that these are dependent claims which rely on allowable amended independent claims 73 and 91, respectively.

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With regard to the 35 USC 101 rejection of claim 112, applicant recites "A process operative on a receive processor which generates ~~for generating~~ a variable length packet from four streams of serial data, the process comprising:..."

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With regard to the 35 USC 101 rejection of claims 113-119, applicant notes that these are dependent claims which rely on allowable amended independent claim 112.

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With this amendment, this application is in condition for allowance. Examiner is advised that agent Chesavage may be reached by telephone at 650-619-5270, or via e-mail at patents@chesavage.com

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Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Jay Chesavage', is positioned above the printed name.

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Jay Chesavage

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